

Full text available: pdf(1.22 MB)

Additional Information: full citation, abstract, references, citings, index terms

Switch chips are building blocks for computer and communication systems. Switches need internal buffering, because of output contention; shared buffering is known to perform better than multiple input queues or buffers, and the VLSI implementation of the former is

not more expensive than the latter. We present a new organization for a shared buffer with its associated switching and cut-through functions. It is simpler and smaller than wide or

Keywords: crossbar switch, gigabit VLSI switch buffer, input queueing, multiport buffer, pipelined memory, shared buffering

interleaved organizations, and it is particula ...